FORM PTO - 1449 (Modified)

PATENT AND TRADEMENT OF CONNERCE

(Modified)

PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

6724.US.P1

O9/941,471

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

(Use several sheets if necessary)

Gang Liu, et al
FILING DATE

August 29, 2001

August 29, 2001

#### **U.S.PATENT DOCUMENTS**

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	INVENTOR	CLASS	SUB CLASS	FILING DATE
v.	Al	3,987,192	10/19/76	Wright	424	304	
<b>—</b>	A2	4,230,484	10/28/80	Batch et al	71	111	

### FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

· .			DOCUMENT NUMBER	PUBLIC- ATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUB CLASS	TRA LAT YES	
~	•	В1	01/19831	22.03.2001	PCT	CENSS	CLITOS	TES	110
		B2	01/19830	22.03.2001	PCT				
		В3	01/17516	15.03.2001	PCT				
	/	B4	99/46236	16.09.1999	PCT				

#### OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

رح ک	CI	Tony Hunter, "The phosphorylation of proteins on tyrosine: its role in cell growth and disease", Phil. Trans. R. Soc. Lond. B (1998) 353: 583-605				
	C2	Chan et al, "The Role of Protein Tyrosine Kinases and Protein Tyrosine Phosphatases in T Cell Antigen Receptor Signal Transduction", Annu. Rev. Immunol. (1994) 12: 555-592				
	C3	Zhong-Yin Zhang, "Structure, Mechanism, and Specificity of Protein-Tyrosine Phosphatases", Current Topics In Celluar Regulation (1997) 35:21-68				
	C4	Matozaki et al, "Roles of Protein-Tyrosine Phosphatases in Growth Factor Signalling", Cell. Signal (1996) Vol. 8, No. 1: 113-119				
	C5	Barry J. Goldstein, "Regulation of Insulin Receptor Signaling by Protein-Tyrosine Dephosphorylation", Receptor (1993) 3:1-15				
	C6	Faure et al, "The Dephosphorylation of Insulin and Epidernal Growth Factor Receptors", Journal of Biol. Chemistry (1992) 267:11215-11221				
	C7	Seely et al, "Protein Tyrosine Phosphatase 1B Interacts with the Activated Insulin Receptor", Diabetes (1996) 45: 1379-1385				
EXAMINE	R	Just VOL DATE CONSIDERED 8/1/53				
EXAMINER not consider	t: Initial red. Inclu	citation considered. Draw line through citation if not in conformance and ude copy of this form with next communication to applicant.				
		(Form PTO 1449)				

DATE: May 23, 2002

SHEET \_2\_ of \_4\_

Form PTO - 1449 (Modified)

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Modified) PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO.	SERIAL NO.
	6724.US.P1	09/941,471
MAN 2 3 2002 INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT(S) Gang Liu, et ai	
105	FILING DATE	GROUP
(Use several sheets if necessary) (37 CFR 1.98 (b))	August 29, 2001	1614

#### **U.S.PATENT DOCUMENTS**

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	INVENTOR	CLASS	SUB CLASS	FILING DATE

#### FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

	DOCUMENT NUMBER	PUBLIC- ATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUB CLASS	TRA LAT YES	ION
					:		

## OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

76	C8	Ahmad et al, "Osmotic Loading of Neutralizing Antibodies Demonstrates a Role for Protein-Tyrosine Phosphatase 1B in Negative Regulation of the Insulin Action Pathway", J. Biol. Chem. (1995) 270:20503-20508
	C9	Elchebly et al, "Increased Insulin Sensitivity and Obesity Resistance in Mice Lacking the Protein Tyrosine Phosphatase-1B Gene", Science (1999) 283: 1544-1548
	C10	Klaman et al, "Increased Energy Expenditure, Decreased Adiposity and Tissue-Specific Insulin Sensitivity in Protein-Tyrosize Phosphastase 1B-Deficient Mice", Molecular and Cellular Biology (2000) 20: 5479-5489
	CII	Hunter et al., Protein-Tyrosine Kinases", Ann. Rev. Biochem (1985) 54:897-930
	C12	Wiener et al, "Overexpression of the Protein Tyrosine Phosphatase PTP1B in Human Breast Cancer: Association with p185c-erB-2 Protein Expression", J. Natl. Cancer Inst. (1994) 86: 372-378
	C13	Noguchi et al, "Role of SH-PTP2, a Protein-Tyrosine Phosphatase with Src Homology 2 Domains, in Insulin-Stimulated Ras Activation:, Molecular Cellular Biology (1994) 14:6674-6682
	C14	Flint et al, "Multi-site phosphorylation of the protein tyrosine phosphatase, PTP1B: identification of cell cycle regulated and phorbol ester stimulated sites of phosphorylation", The EMBO Journal (1993) 12: 1937-1946 /
	C15	Mauko et al, "Identification of a Hormonally Regulated Protein Tyrosine Phosphatase Associated with Bone and Testicular Differentiation", Journal of Biological Chemistry (1994) 269: 30659-30667
	C16	Wang et al, "Mechanism of Inhibition of Protein-Tyrosine Phosphatases by Disodium Aurothiomalate", Biochemical Pharmacology (1997) 54:703-711
	C17	Mauro et al, "Zip Codes' direct intracellular protein tyrosine phosphatases to the correct cellular 'address'", TIBS (1994) 19: 151-155
	C18	Tonks et al, "Purification of the Major Protein-tyrosine-phosphatases of Human Placenta", J. Biol. Chem. (1998) 263: 6722-6730
EXAMINE	ER /	DATE CONSIDERED DIAMETER

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO 1449)

MAY 2 8 2007 50

**DATE: May 23, 2002** 

SHEET \_3\_ of \_4\_

Form PTO - 1449 (Modified)

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Modified) PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO.	SERIAL NO.	
OIPE	6724.US.P1	09/941,471	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT(S)		
MAY 2 3 MAR CONTRACTOR AT ELECATOR	Gang Liu, et al FILING DATE	GROUP	
(Use several sheets if necessary)	August 29, 2001	1614	

## **U.S.PATENT DOCUMENTS**

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	INVENTOR	CLASS	SUB CLASS	FILING DATE
					-	

#### FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

DOCUMENT NUMBER	PUBLIC- ATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUB CLASS	TRA LAT YES	ION ·

## OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

	1.010					
	C19	Cool et al, "cDNA isolated from a human T-cell library encodes a member of the protein-tyrosine-phosphatase family", Proc. Natl. Acad. Sci. USA (1989) 86: 5257-5261				
	C20	Lombroso et al, "Molecular characterization of a protein-tyrosine-phosphatase enriched striatum", Proc. Natl. Acad. Sci. USA (1991) 88: 7242-7246				
	C21	Plutzky et al, "Isolation of a src homology 2-containing tyrosine phosphatase", Proc. Natl. Acad. Sci USA (1992) 89: 1123-1127				
	C22	Vogel et al, "Activation of a Phosphotyrosine Phosphatase by Tyrosine Phosphorylation", Science (1993) 259: 1611-1614				
	C23	Feng et al, "SH2-Containing Phosphotyrosine Phosphatases as a target of Protein-Tyrosine Kinases", Science (1993) 259: 1607-1611				
	C24	Ralph et al, "Structural Variants of Human T200 glycoproetin (leukocyte-common antigen)" The EMBO Journal (1987) 6: 1251-1257				
	C25	Streuli et al, "A New Member of the Immunoglobulin Super Family that has a Cytoplamic Region Homologous to the Leukocyte Common Antigen", J. Exp. Med. (1988) 168(5): 1523-1530				
	C26	Krueger et al, "Structural Diversity and Evolution of Human Receptor-Like Protein Tyrosine Phosphatases", The EMBO Journal (1990) 9: 3241-3252				
	C27	Beaulieu et al, "Ligands for the tyrosine kinase p56lck SH2 domain: Discovery of potent dipeptide derivatives with monocharged, nonhydrolyzable phosphate replacements" J. Med. Chem. (1999) 42: 1757-1766				
W	C28	Andersen et al, "2-(Oxalylamino)-benzoic acid Is a general, competitive inhibitor of protein-tyrosine phosphatases" J. Biol. Chem. (2000) 275: 7101-7108				
100	C29	Iversen et al, "Structure-based design of a low molecular weight nonphosphorus, nonpeptide, and highly selective inhibitor of protein-tyrosine phosphatase 1B", J. Biol. Chem. (2000) 275: 10300-10307				
EXAMINER	•	my DATE CONSIDERED 8/1/85				

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO 1449)

DATE: 1	May 23.	2002
---------	---------	------

SHEET _4_	of_4_TECH	
 SERIAL NO. 09/941,471	CENTE	
03/341,471	1600	

# Form PTO - 1449 (Modified)

	FORM I	210-1449
/	0	TO SECOND
	MAY 2 3 ?	24
	Te TRADIN	WEN CHILL
	(37 CFR	1.98 (b))

U.S. DEPARTMENT OF COMMERCE

PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO. SERIAL NO.		
6724.US.P1	09/941,471	一量
APPLICANT(S)		1600,
Gang Liu, et al		క్ష
FILING DATE	GROUP	8
August 29, 2001	1614	0

#### **U.S.PATENT DOCUMENTS**

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	INVENTOR	CLASS	SUB CLASS	FILING DATE
						1

## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

	DOCUMENT NUMBER	PUBLIC- ATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUB CLASS	TRA LATI YES	ION

## OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

~~	C30	Abstract XP002195161. Podesva, C et al: Canadian Journal of Chemistry (1968) 46: 435-439
10	C31	Abstract XP002195162. Peet, Norton P. et al: Journal of Heterocyclic Chemistry (1980) 17: 1513-1518
20	C32	Abstract XP002195163. Lee, Sang-Gi et al: Synthetic Communications (1996) 26: 4623-4632
16	C33	Abstract XP002195164. Ye, Jia-Hai et al: Tetrahedron Letters (1999) 40: 1365-1368
	C34	Abstract XP002195165. Wakita, Yoshiaki: Journal of Organometallic Chemistry (1985) 297: 379-390
10	C35	Abstract XP002195166. Cannizzo, Sergio et al: Journal of Heterocyclic Chemistry (1990) 27: 2175-2179
	C36	Abstract XP002195167. Bergman, Jan: Tetrahedron (1986) 42: 3689-3696
	C37	Abstract XP002195168. Loev, Bernard: Journal of Medicinal Chemistry (1985) 28: 363-366

	(				
EXAMINER: In	itial citation	n considered.	Draw line through	citation if not	in conformance an

not considered. Include copy of this orm with next communication to applicant.

(Form PTO 1449)

ORM PTO-14 Modified O I P	449 U.								MERCE ( OFFICE		ATTY. DOCKET NO. 6724.US.P1		SERIAL NO. 50 09/941,47 50			则
NOV 2 9 2000	, <b>~</b> ~	TAT	RMA EME	TN:	RY	ΔPF	I IC	ΔN.	r		Gang Liu, et al.	GROUP 1500			E	
STATEMENT BY APPLICANT  STATEMENT BY APPLICANT  STATEMENT BY APPLICANT  (37.658.45.99 (b))											August 29, 2001		1614	, 8	3	
	<u>.</u>							ι	J.S.PATEN	T DC	CUMENTS			•		
EXAMINE R INITIAL			PAT	EN	ΤN	UM	BEF	₹	ISSUE DATE		PATENTEE	CI	ASS.	SUB	FILIN DAT	
	A1	4	0	9	1	0	1	1	05.23.78	Wrig	ght					
		<u> </u>	ļ									-				
	FC	ı	EIG OCL						PUBLISH  PUBLI- CATION DATE	ED F	COUNTRY OR PATENT OFFICE		LICA 	SUB CLASS	TRA LAT	
S	B1 B2 B3	1 9 0	5 9 2	1 4 1	7 6 8	8 2 3	9 3 2	6 7 3	22.03.68 16.09.99 07.03.2002	FR WO WO						
							<b></b>									
		ОТ	HE	R	DO	CU	ME	ENT	ΓS (Includin	y Auth	nor, Title, Date, Place	of Pu	blicati	on)		
79	C1		275	d Hi <b>5(1</b> 4	ghly <b>i):</b> 10	Sel )300	ectiv 1-100	ve Ir 307	nhibitor of Prote (2000)	ein-tyro	n of a Low Molecular We sine Phosphatase 1B", .	lõum. (	Of Biol.	Chem.,		·,
	C2		Pe Ph	ters osp	, G. hata	H., ses	et al	., "F and	Residue 259 Is α*", Journ. Of	a Key I Biol. C	Determinant of Substrate hem., <b>275(24)</b> :18201-18	Speci 209 (20	ficity of 000)	Protein-tyro	sine 	
XAMINER			-		he		1.		V 674	DA	TE CONSIDERED		Y/1	/ os		·
XAMINER:	nitial c	itati	on c	ons	side	red.	Dr	aw wit	ine through c	itation	if not in conformance on to applicant.	and	<del>- / `</del>			